

REMARKS

Formal Matters

Claims 1-30 are pending.

Claims 1-30 were examined and rejected.

Claim 1, 10, 20, 26 and 30 are amended. The amendment was made solely in the interest of expediting prosecution, and is not to be construed as an acquiescence to any objection or rejection of any claim. Support for the amendments is found in the claims as originally filed, and throughout the specification, in particular page 8, lines 4-5, page 8, lines 29-31, page 9, lines 10-11 and page 12, lines 11-14. Accordingly, no new matter is added.

Applicants respectfully request reconsideration of the application in view of the remarks made herein.

Interview Summary

The Applicants wish to express their gratitude to Examiners Quash and Lee for the telephone interview conducted on May 20, 2004, with Applicants' representative James Keddle. The outstanding rejections were discussed, as well as arguments to overcome those rejections.

Examiner Lee indicated that all remaining rejections under 35 U.S.C. § 102 and 35 U.S.C. § 103 may be withdrawn if a) the phrase "without further adjustment" is added to the claims, and b) if the meaning of the phrase "optical alignment within acceptable tolerances" is discussed in relation to the cited art.

The Response in General

Without any intention to acquiesce to the correctness of any of the remaining rejections and solely to expedite prosecution, the claims have been amended to recite a composition that provides for optical alignment within acceptable tolerances, *without further adjustment*, of components of an ion optics system when mounted thereon. In other words, the claims have been amended to recite methods and apparatuses that require an "optical bench" to which components of an ion optic system (e.g., mirrors, lenses, etc.) may be

attached so that they are optically aligned within acceptable tolerances upon their attachment to the bench, without any need for further adjustments. This amendment is not intended to exclude methods and apparatuses involving both the claim-recited optical bench *and* other adjustment systems, however.

The above-described feature is recited in all of claims 1-29. For example: claim 1 recites a support that provides for optical alignment within acceptable tolerances, without further adjustment, of components of an ion optics system when mounted thereon; claims 10 and 26 recite support mating faces and corresponding base mating faces, that provide for optically alignment within acceptable tolerances without further adjustment; and claim 20 recites faces that provide for optical alignment within acceptable tolerances without further adjustment.

The Applicants respectfully submit that none of the references cited in this Office Action discloses any composition that provides for optical alignment within acceptable tolerances, *without further adjustment*, of components of an ion optics system when mounted thereon. Accordingly, the Applicants respectfully request that all remaining rejections be withdrawn, and the pending claims allowed to issue.

As is well known in the art, optical alignment is generally done *after* ion optic components are mounted to a platform. As such, prior art devices (such as those described in the art cited in the Office Action) typically contain means for adjusting ion optics components *after* they are mounted. Such devices are not encompassed by the claims and cannot anticipate the claims since they do not contain an optical bench that (by itself) can provide for optical alignment of components of an ion optics system within acceptable tolerances, without further adjustment.

Accordingly, a mere platform to which ion optic components may be mounted cannot anticipate the claims because such a platform does not necessarily provide for optical alignment within acceptable tolerances. Similarly, a platform with mounted ion optic components that have been adjusted to be in acceptable optical alignment *after* they have been mounted onto the bench cannot anticipate the claims because acceptable optical alignment is not provided by the platform. Finally, a mere platform to which ion

optic components may be mounted to provide sub-optimal alignment cannot anticipate the claims because the components are aligned **without further adjustment** to maximize resolution of the spectra peaks, as required by the definition of the term “optically aligned within acceptable tolerances”, as found in the paragraph starting on line 33 of page 8 of the instant specification.

None of the publications cited to support the rejections set forth in the Office Action discloses, teaches or fairly suggests (explicitly or inherently) the above-described element of the claimed invention. Accordingly, the cited art cannot render the rejected claims unpatentable.

Pursuant to the comments made by Examiner Lee during the aforementioned interview, the Applicants respectfully request withdrawal of all of the remaining rejections and allowance of the claims.

Specific rejections are addressed below.

Rejection of claims under 35 U.S.C. § 102-Becker

Claims 20-22, 26-28 and 27 are rejected under U.S.C. § 102(b), as being anticipated by Becker (USPN 5,864,137). The Applicants respectfully traverse this rejection.

As discussed in greater detail above, Becker does not disclose (explicitly or inherently) any kind of a platform that **can** provide for optical alignment of components of an ion optics system within acceptable tolerances, without further adjustment, as required by the rejected claims.

Accordingly, Becker cannot anticipate the claims, and this rejection may be withdrawn.

Rejection of claims under 35 U.S.C. § 102-Kirchner

Claims 10, 20 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Kirchner (USPN 5,464,975). The Applicants respectfully traverse this rejection. The Applicants respectfully traverse this rejection.

As discussed in greater detail above, Kirchner does not disclose (explicitly or inherently) any kind of a platform that **can** provide for optical alignment of components of an ion optics system within acceptable tolerances, without further adjustment, as required by the rejected claims.

Withdrawal of this rejection is respectfully requested.

Rejection of claims under 35 U.S.C. § 102-Blessing

Claim 30 is rejected under 35 U.S.C. 102(e) as being anticipated by Blessing (USPN 6,239,429). The Applicants respectfully traverse this rejection.

Claim 30 is directed to an apparatus containing, *inter alia*, a base plate having a groove in a face thereof with an electrical lead sequestered in the groove and a shielding plate covering the groove.

The Applicants respectfully submit that Blessing's channel discussed in the Office Action is not on a face of a base plate and not covered by a shielding plate.

Accordingly, Blessing cannot anticipate the rejected claims, and this rejection may be withdrawn.

Rejection of claims under 35 U.S.C. § 103-Meek

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable in view of Meek (USPN 4,686,365). The Applicants respectfully traverse this rejection.

As discussed in greater detail above, Meek does not disclose, teach or fairly suggest (explicitly or inherently) any kind of a platform that can provide for optical alignment of components of an ion optics system within acceptable tolerances, without further adjustment, as required by the rejected claims.

In view of the foregoing discussion, withdrawal of this rejection is respectfully requested.

Rejection of claims under 35 U.S.C. § 103-Becker

Claims 1-5, 10 and 13-18 are rejected under 35 U.S.C. 103(a) as being obvious in view of Becker (USPN 5,864,137). The Applicants respectfully traverse this rejection.

As discussed in greater detail above, Becker does not disclose, teach or fairly suggest (explicitly or inherently) any kind of a platform that can provide for optical alignment of components of an ion optics system within acceptable tolerances, without further adjustment, as required by the rejected claims.

In view of the foregoing discussion, withdrawal of this rejection is respectfully requested.

Rejection of claims under 35 U.S.C. § 103- Kirchner

Claims 11-12 are rejected under 35 U.S.C. 103(a) as being obvious in view of Kirchner (USPN 5,464,975). The Applicants respectfully traverse this rejection.

As discussed in greater detail above, Kirchner does not disclose, teach or fairly suggest (explicitly or inherently) any kind of a platform that can provide for optical alignment of components of an ion optics system within acceptable tolerances, without further adjustment, as required by the rejected claims.

In view of the foregoing discussion, withdrawal of this rejection is respectfully requested.

Rejection of claims under 35 U.S.C. § 103- Young/Kirchner

Claims 1,6 and 8-9 are rejected under 35 U.S.C. 103(a) as being obvious in view of Young (USPN 5,360,976) in view of Kirchner. The Applicants respectfully traverse this rejection.

As discussed in greater detail above, neither Young nor Kirchner discloses, teaches or fairly suggests (explicitly or inherently) any kind of a platform that can provide for optical alignment of components of an ion optics system within acceptable tolerances, without further adjustment, as required by the rejected claims.

Accordingly Young and Kirchner, taken together or separately, fail to teach an element of the claimed invention, and, as such, cannot render obvious the subject matter of the rejected claims.

In view of the foregoing discussion, withdrawal of this rejection is respectfully requested.

Rejection of claims under 35 U.S.C. § 103- Kirchner/Young/Blessing

Claims 19, 23-25 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirchner (USPN 5,464,975), in view of Young (USPN 5,360,976), in further view of Blessing (USPN 6,239,429). The Applicants

respectfully traverse this rejection.

As discussed in greater detail above, none of Kirchner, Young and Blessing discloses, teaches or fairly suggests (explicitly or inherently) any kind of a platform that can provide for optical alignment of components of an ion optics system within acceptable tolerances, without further adjustment, as required by the rejected claims.

Accordingly Kirchner, Young and Blessing, taken together or separately, fail to teach an element of the claimed invention, and, as such, cannot render obvious the subject matter of the rejected claims.

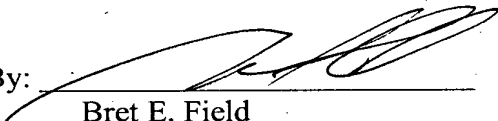
In view of the foregoing discussion, withdrawal of this rejection is respectfully requested.

CONCLUSION

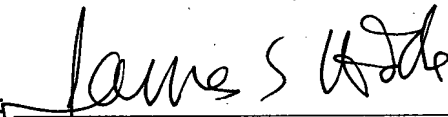
The applicants respectfully submit that all of the claims are in condition for allowance, which action is requested. If the Examiner finds that a telephone conference would expedite the prosecution of this application, please telephone Timothy Joyce at 650 485 4310. The Commissioner is hereby authorized to charge any fees under 37 C.F.R. §§ 1.16 and 1.17 which may be required by this paper, or to credit any overpayment, to Deposit Account No. 50-1078.

Respectfully submitted,

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